Alberta Official Statistics

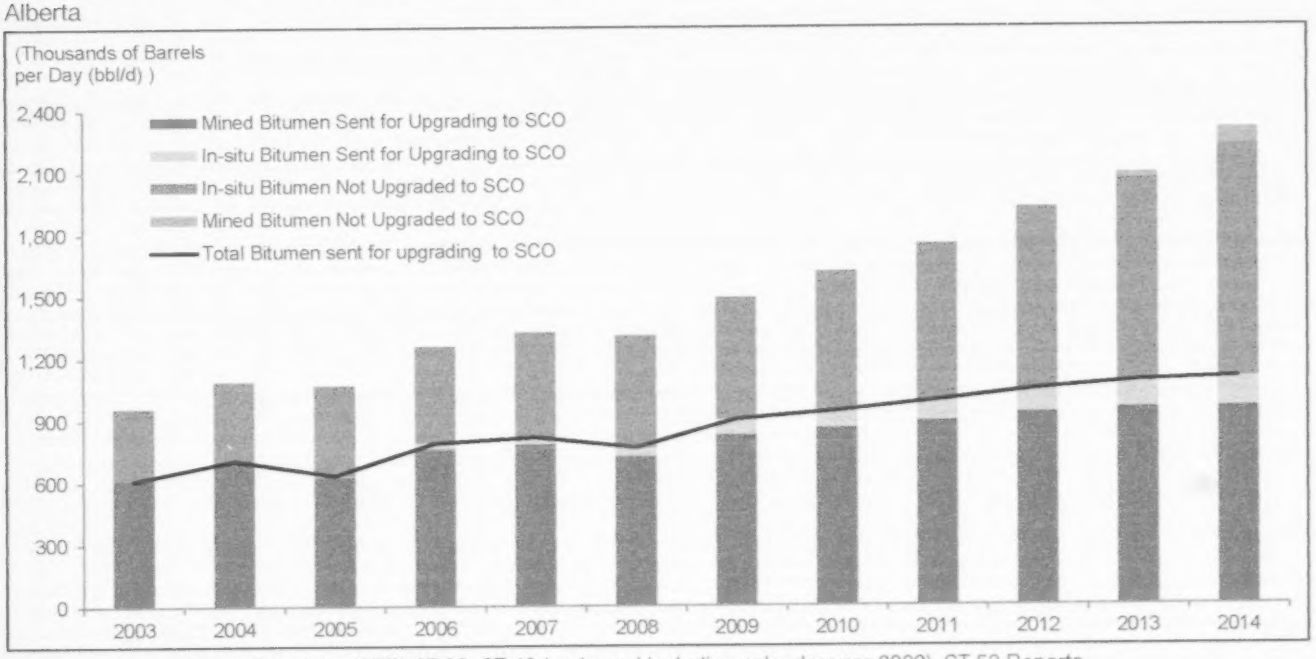
Bitumen Sent for Upgrading to Synthetic Crude Oil (SCO), Alberta

- In 2014, Alberta's total bitumen sent for upgrading to synthetic crude oil (SCO) averaged 1.1 million barrels per day (bbl/d). This represented an increase of about 1.5% over 1.08 million bbl/d reported in 2013.
- Overall, the volumes of crude bitumen are reduced during the conversion of bitumen to SCO. Therefore, the total volumes of bitumen sent for upgrading to SCO in Alberta are higher than the SCO volumes produced. In 2014, 1.1 million bbl/d was sent for upgrading to SCO; 955,000 bbl/d of SCO was produced in that year.
- Prior to 2013, all mined bitumen produced in Alberta was sent for upgrading to SCO. In 2013, 2.6 percent or approximately 25,000 bbl/d of total mined bitumen produced in Alberta was sent to market in the non-upgraded form. In 2014, mined bitumen sent to the market in the non-upgraded form increased to 7.7% or approximately 80,000 bbl/d. The volumes of mined bitumen produced in Alberta that are sent to the market without being upgraded to SCO are relatively small, representing about 1% and 3% of total crude bitumen production in 2013 and 2014, respectively.
- Alberta's total mined bitumen volumes sent for upgrading to SCO rose by about 1% from 952,000 bbl/d in 2013 to 959,000 bbl/d in 2014.
- The volumes of in-situ bitumen sent for upgrading to SCO increased by about 7.5% from 131,000 bbl/d in 2013 to 140,000 bbl/d in 2014.
- Overall, about 11% of all in-situ bitumen produced in 2014 was sent for upgrading to SCO.

Note: Percentage changes were calculated prior to rounding and therefore the calculations may not be precisely replicable from the figures shown.

Bitumen Sent for Upgrading to Synthetic Crude Oil (SCO)

Alberta



Sources: Alberta Energy Regulator (AER) ST-39, ST-43 (up to and including calendar year 2009), ST-53 Reports

Alberta Government

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Metadata is an important component of the Alberta Official Statistics.

Title	Bitumen Sent for Upgrading to Synthetic Crude Oil (SCO), Alberta
Alternative Title	
Creator	Energy
Category	Energy
Abstract*	This Alberta Official Statistic represents Total Bitumen Sent for Upgrading to Synthetic Crude Oil (SCO) in Alberta.
Full Description	The Alberta Official Statistic represents Total Bitumen Sent for Upgrading to SCO in Alberta. It reports mined bitumen sent for upgrading to SCO, mined bitumen not sent for upgrading to SCO, in-situ bitumen sent for upgrading to SCO, total bitumen sent for upgrading to SCO, and in-situ bitumen that is not upgraded to SCO. Total volumes of bitumen reported in this Alberta Official Statistic are consistent with total crude bitumen production volumes reported in the Total Bitumen Production Alberta Official Statistic. Starting in 2003, some in-situ volumes started to be sent for upgrading to SCO. Prior to 2013, all mined bitumen produced in Alberta was sent for upgrading to SCO. In 2013, some mined bitumen was sent to market in the non-upgraded form. All historical data are taken from the Alberta Energy Regulator's (AER) reports.
Time Coverage YYYY-MM-DD – YYYY-MM-DD	2003-01-01 to 2014-12-31
Spatial Coverage	Alberta
Data Source	Alberta Energy Regulator (AER) ST-39, ST-43 (up to and including calendar year 2009), ST-53 Reports.
Risk Considerations	
Usage Considerations	All production data reported in this Alberta Official Statistic is reported by the Alberta Energy Regulator (AER). The data are obtained by the Department of Energy (DOE) from AER's reports, and converted from cubic metres to barrels at the DOE, using the conversion factor of 1 cubic metre = 6.29295 barrels. Mined bitumen volumes data are taken from *ST-39 Reports* (Alberta Mineable Oil Sands Plant Statistics Monthly Supplement). ST-39 is a monthly report. In the past mined bitumen production was also reported in the Energy Utilities Board (EUB)/ Energy Resources Conservation Board (ERCB) ST-43 Reports (Alberta Mineable Oil Sands Plant Statistics Annual Report). ST-43 Reports have been discontinued; the final ST-43 Report included data up to and including calendar year 2009. Starting in 2003, some in-situ volumes from Suncor, and subsequently volumes from Nexen started to be sent for upgrading to SCO. Prior to 2013, all mined bitumen produced in Alberta was sent for upgrading to SCO. In 2013, some mined bitumen was sent to market in the non-upgraded form. 1) To calculate Mined Bitumen Production/Bitumen Sent for Upgrading to SCO, mined bitumen production volumes are taken from ST-39 Reports. Since ST-39 reports annual mined volumes in cubic metres, the data has to be converted to barrels per day. This is done by dividing the ST-39 data by either 365 or 366, depending on whether the year under consideration is a leap year or not. The resulting volume is then multiplied by 6.29295 to convert cubic metres to barrels. Bitumen production from all producers included in the reports, except for Imperial Kearl, is included in the calculation of mined bitumen sent for upgrading to SCO.

	2) Mined bitumen not sent to upgrading to SCO is also taken from ST-39 Reports. Therefore for the production volumes reported for Imperial Kearl, please see (1) for the conversion ratio. 3) To calculate the in-situ volumes that are sent for upgrading to SCO, delivery volumes from ST-39 have to be subtracted from the receipt volumes in ST-39 for Suncor and Nexen. 4) The In-situ Bitumen Sent for Upgrading is the sum of the difference between Suncor receipt/deliveries and Nexen receipt/ deliveries in ST-39. 5) Total In-situ production data is taken from ST-53 reports. Since ST-53 reports data in cubic metres/day, it has to be converted to barrels per day by multiplying total result for a calendar year by 6.29295. 6) Data for In-situ Non-Upgraded Bitumen sent to the market are calculated by subtracting Suncor and Nexen ST-39 adjusted volumes from total in-situ volumes in the ST-53 report. 7) Total Bitumen Sent for Upgrading to SCO is the sum of Mined Bitumen sent for upgrading and the In-situ Bitumen Sent for Upgrading.
Supporting Documents	*Alberta Energy Regulator - Statistical Reports*
Related Products	

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